Iowa Department of Natural Resources
Title V Operating Permit

Name of Permitted Facility: Woodharbor Molding and Millworks, Inc.
Facility Location: 3277 9th Street SW
Mason City, Iowa 50401
Air Quality Operating Permit Number: 00-TV-027-M004
Expiration Date: May 21, 2005

EIQ Number: 92-6876
Facility File Number: 17-01-068

Responsible Official
Name: Myron Lupkes
Title: Facility Engineer/Maintenance
Mailing Address: 3277 9th Street SW
Mason City, IA 50401
Phone #: 515/423-0444 ext. 2232

Permit Contact Person for the Facility
Name: Myron Lupkes
Title: Facility Engineer/Maintenance Manager
Mailing Address: 3277 9th Street SW
Mason City, IA 50401
Phone #: 515/423-0444 ext. 2232

This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit.

For the Director of the Department of Natural Resources

Douglas A. Campbell, Supervisor of Air Operating Permits Section Date

Table of Contents

Abbreviation

acfm.....actual cubic feet per minute
CFR.....Code of Federal Regulation
^{o}F.....degrees Fahrenheit
EIQ.....emissions inventory questionnaire
gr./dscf .....grains per dry standard cubic foot
IAC.....Iowa Administrative Code
IDNR.....Iowa Department of Natural Resources
MVAC.....motor vehicle air conditioner
NSPS.....new source performance standard
lb./hr.....pounds per hour
lb./MMBtu .....pounds per million British thermal units
lb./hr……pounds per hour
USEPA United States Environmental Protection Agency
ppmv……parts per million by volume
gr./100 cf…….grains per one hundred cubic feet
TPY…….tons per year
gal./hr……..gallons per hour
oz./min…….ounces per minute

Pollutants
PM.....particulate matter (equivalent to TSP, total suspended particulate)
PM_{10}……...particulate matter ten microns and less in diameter
SO_2.....sulfur dioxide
NO_x .....nitrogen oxides
VOC.....volatile organic compound
CO.....carbon monoxide
HAP.....hazardous air pollutant
VHAP…….volatile hazardous air pollutant

I. Facility Description and Equipment List

Facility Name: Woodharbor Molding and Millworks, Inc.
Permit Number: 00-TV-027-M004

Facility Description: Wooden Door and Cabinet Manufacturer

Equipment List

Emission Point Number	Associated Emission Unit(s) Number (s)	Associated Emission Unit Description
1	1	Topcoat Spray Booth
2	2	Sealer Spray Booth
3	3	Stain Spray Booth
4	4	Welding Bench
5	5	Various Woodworking Processes
6	5	Various Woodworking Processes
7	7	Various Woodworking Processes
8	8	Topcoat Spray Booth
9	9	Sealer Spray Booth
10	10	Stain Spray Booth
11	11	Timesaver Sander #1
12	12	Timesaver Sander #2
13	13	Studio Spray Booth
14	14	Custom Finish Spray Booth
15	15	Custom Finish Spray Booth
16	16	Adhesive Application (Fugitive)
19	19	Stain Booth
20	20	Sealer/Topcoat Booth
21	21	Glaze Booth
22	22	Sealer/Topcoat Booth
23	23	Sealer/Topcoat Booth
24A	24	Pump Room/Inventory Holding Area
24B	24	Pump Room/Inventory Holding Area
25	25	Various Woodworking Processes
2-1	2-1	Various Woodworking Processes
26	26	Putty Application (Fugitive)

Insignificant Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
EU-17	Solvent Parts Washer (Fugitive)
EU-18	19 Natural Gas Heaters and 1 Boiler (<10MMBtu)

II. Plant-Wide Conditions

Facility Name: Woodharbor Molding and Millworks, Inc.
Permit Number: 00-TV-027-M004

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.108

Permit Duration

The term of this permit is: Five (5) Years
Commencing on: May 22, 2000
Ending on: May 21, 2005

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 22.110 - 22.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 22.115.

Unless specified otherwise in the Source Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:

Opacity (visible emissions): 40% opacity
Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO_2): 500 parts per million by volume
Authority for Requirement: 567 IAC 23.3(3)"e"

Particulate Matter: No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.

For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).
Authority for Requirement: 567 IAC 23.3(2)"a"

Fugitive Dust: Attainment and Unclassified Areas - No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance,

as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizers or limestone.
4. Covering at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.

Authority for Requirement: 567 IAC 23.3(2)"c"

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40 CFR Part 63, Subpart JJ--National Emission Standards for Wood Furniture Manufacturing Operations

The Permittee shall comply with all applicable requirements of 40 CFR Part 63, Subpart JJ and 40 CFR Part 63, Subpart A. ***This applies only to finishing materials and contact cements used on wood furniture components at Emission Points 1, 2, 3, 8, 9, 10, 13, 14, 15 and 16.***

Emission Limits:

A. The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E that is no greater than 1.0;

$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month (lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

-40 CFR 63.802(a)(1)

B. The permittee shall limit VHAP emissions from contact adhesives by achieving a VHAP limit for contact adhesives based on the following criteria:
   a) For foam adhesives (contact adhesives used for upholstery operations) used in products that meet the upholstered seating flammability requirements of California Technical Bulletin 116, 117, or 133, the Business and Institutional Furniture Manufacturers Association (BIFMA's)X5.7, UFAC flammability testing, or any similar requirements from local, State, or Federal fire regulatory agencies, the VHAP content of the adhesive shall not exceed 1.8 kg VHAP/kg solids (1.8 lb VHAP/lb solids), as applied; or
   b) For all other contact adhesives (including foam adhesives used in products that do not meet the standards presented in paragraph (B)(a) of this section, but excluding aerosol adhesives and excluding contact adhesives applied to nonporous substrates), the VHAP content of the adhesive shall not exceed 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied.

   -40 CFR 63.802(a)(2)

C. The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

   -40 CFR 63.802(a)(3)

<u>Work Practice Standards</u>:

The permittee shall meet all of the following required work and operational practices as applicable:

A. Operator Training Program
   a) The permittee must conduct annual training of all employees who are involved in finishing, gluing, cleaning, or washoff operations. All personnel hired before the effective date December 7, 1998 must be trained within 6 months of the effective date. Personnel hired after the effective date of the standard must be trained upon hiring. All personnel must be retrained annually.
   b) Operator training should include instruction in application techniques, cleaning and washoff procedures, equipment setup and adjustment, and management of waste solvent from cleaning and washoff operations. The permittee must develop a training program that includes a list of current personnel that must be trained, an outline of the subjects covered in the initial and refresher training, and a description of how the permittee will document that personnel have successfully completed the training program.

   – 40 CFR 63.803(b)

B. Inspection and Maintenance Plan
   a) The permittee must develop a written inspection and maintenance plan that addresses equipment leaks. The permittee is required to visually check all equipment used to transfer or apply finishing materials, adhesives or organic HAP solvents at least once a month to ensure there are no equipment leaks.
   b) The plan should include a schedule for inspections and a way to document the date of each inspection as well as any repairs that were made. After identifying the leak, the permittee must attempt to repair the leak within 5 days and make final repairs within 15 days, unless the leaking equipment has to be replaced, in which case the permittee is

allowed 3 months to complete repairs.
– 40 CFR 63.803(c)

C. Cleaning and Washoff Solvent Accounting Program

The permittee is required to develop an organic HAP solvent accounting form for tracking the amount and type of organic HAP solvent used for cleaning and washoff each month. The permittee must also track the amount of spent solvent that is generated from each cleaning operation each month, the amount of spent organic HAP solvent that is reused in-house for operations other than cleaning or washoff, and the amount that is sent off-site for disposal. The program should provide a mechanism for tracking the number of pieces that are washed off and the reason for the washoff.
– 40 CFR 63.803(d)

D. Additional Work Practice Standards

a) Spray Booth Cleaning: Unless operators are cleaning conveyors, continuous coaters and their enclosures, or metal filters, they may not use cleaning compounds containing more than 8.0 percent of VOC by weight. The permittee may, however, use organic HAP solvents in small quantities, no more than 1.0 gallon per booth, if they are replacing the strippable spray booth coating or other protective material used to cover the booth.
– 40 CFR 63.803(f)

b) Storage Containers: All containers that are used to store finishing, cleaning, gluing, or washoff materials must be closed unless an operator is emptying or filling the container. This includes drums that are used to hold wiping rags.
– 40 CFR 63.803(g)

c) Application Equipment: The permittee shall use conventional air spray guns to apply finishing materials only under any of the circumstances:
   i) To apply finishing materials that have a VOC content no greater than 1.0 lb VOC/lb solids, as applied.
   ii) For touchup and repair under the following conditions:
      (1) the touchup and repair occurs after completion of the finishing operation, or
      (2) the touchup and repair occurs after the application of stain and before the application of any other type of finishing material, and the materials used for touchup and repair are applied from a container that has a volume of no more than 2.0 gallons.

   – 40 CFR 63.803(h)

d) Gun and Line Cleaning: Organic HAP solvent used to clean spray guns and lines must be collected in a container that is kept closed except when an operator is emptying or filling the container.
– 40 CFR 63.803(i) and (j)

e) Washoff Operations: Tanks used for washoff must be kept closed when they are not being used. Operators should also try to minimize dripping from the part that had been washed off by tilting or rotating the part so that the solvent can drain back into the tank.
– 40 CFR 63.803(k)

E. Work Practice Implementation Plan

The permittee must develop a work practice implementation plan that documents how they will ensure that all of the work practice standards are followed. The operator-training program, the inspection and maintenance plan, and the solvent accounting program should be included in the work practice implementation plan along with

examples of record forms or checklists developed by the facility as a part of these plans. The plan shall be developed no more than 60 days after the compliance date, and the written work practice implementation plan shall be available for inspection.
– 40 CFR 63.803(a)

F. Formulation Assessment Plan for Finishing Operations

a) The permittee must identify any chemicals from Appendix B that are used in his finishing materials or thinners. The permittee must then determine how much of the chemical they used in 1994, 1995, and 1996. The highest value from those 3 years is considered the baseline level of usage for that chemical. The formulation assessment plan only applies to VHAP of potential concern used in finishing materials.

b) The permittee must continue to track their usage of each VHAP of potential concern, but only those with quantities high enough to be reported on the MSDS. If after November 1998, the permittee's usage of the VHAP exceeds the baseline usage level for that VHAP, the facility must notify the Department in writing that they have exceeded the baseline and the reason why. If the permittee has exceeded the baseline for any of the reasons below, and they are in compliance with any State regulations or requirements for that VHAP, the permittee does not have to take any further action.
   i) The exceedance is no more than 15.0 percent above the baseline level.
   ii) The permittee's usage of the VHAP is less than the de minimis value for that VHAP as presented in Appendix B.
   iii) The permittee is in compliance with its State's air toxics regulations or guidelines for that VHAP.
   iv) The VHAP is being used in a finishing material with a VOC content of no more than 1.0 lb/solids, as applied.

c) If exceedance is due to some other reason, then the permittee must then refer to the Department to discuss the reason for the increase and whether or not there are practical and reasonable technology-based solutions for reducing the usage.
   Cost, quality and marketability of the product, as well as successful usage of the technology by other wood furniture manufacturers, may also be considered in determining whether a solution exists.
   i) If there are no practical and reasonable solutions, the permittee will not have to take any further action.
   ii) If there are solutions, the permittee must develop a plan to reduce usage of the VHAP to the extent feasible. The plan should address the approach the permittee will use to reduce usage, a timetable for reducing usage and a schedule for reporting progress to the permitting authority.

d) There may be cases in which the permittee begins using a VHAP of potential concern for which a baseline level has not been previously established. In those cases, the baseline level is equal to the de minimus level based on 70 year exposure levels and data provided in the proposed rule making pursuant to section 112(g) of the Clean Air Act, for that VHAP. A complete listing of all VHAP of potential concern is presented in Table 6 of the subpart. If the usage of the VHAP is greater than the de minimus level, then the permittee must follow the same procedures as those in the previous paragraphs for exceeding an established baseline level.
   – 40 CFR 63.803(l)

G. Composition of Cleaning and Washoff Solvents: The NESHAP prohibits the use of solvents containing any of the chemicals listed in Appendix C for cleaning and washoff operations. The restriction is only limited to chemicals that are present in the solvent at a level high enough that they have to be reported on an MSDS.
– 40 CFR 63.803(e)

Reporting and Recordkeeping Requirements:

A. The permittee shall maintain records in written or electronic form specified below for the lifetime of the source:
   a) Compliant coatings
      i) Certified product data sheets for each finishing material, thinner, contact adhesive and strippable spray booth coating subject to the emission limits presented in Appendix A.
      ii) The VHAP content, in lb VHAP/lb solids, as applied, for each coating subject to the emission limits presented in Appendix A.
      iii) The VOC content, in kg VOC/kg solids (lbVOC/lb solids), as applied, of each strippable booth coating.
      –40 CFR 63.806(b)
   b) Copies of the average calculation for each month following the compliance date, as well as the data on the quantity of the coatings and thinners used that is necessary to support the calculation of E in Equation 1.
      –40 CFR 63.806(c)
   c) Operator Training Program
      i) Copy of the program including a list of personnel required to be trained, an outline of the subjects to be covered, and lesson plans for the training courses.
      ii) Records documenting successful completion of the training program for each individual.
      iii) Records of date each individual was trained.
      –40 CFR 63.803(b), 40 CFR 63.806(e)(1)
   d) Inspection and Maintenance Plan
      i) Copies of checklists documenting visual monthly inspection of equipment.
      ii) Records demonstrating time frame for making repairs.
      –40 CFR 63.803(c), 40 CFR 63.806(e)(2)
   e) Cleaning and washoff solvent accounting system
      i) Record of the quantity and type of organic solvent used each month for washoff and cleaning.
      ii) Record of the number of pieces washed off and the reason why.
      iii) Record of the quantity of spent solvent generated each month by operation and whether it is recycled onsite or disposed of off-site.
      –40 CFR 63.803(d), 40 CFR 63.806(e)(3)
      iv) Spray booth cleaning – Records of VOC content of material used for cleaning spray booths.
      –40 CFR 63.803(g)
   f) Application equipment requirements
      i) Records documenting that conventional air spray guns are only being used as allowed, including:

ii) If used for applying low VOC coatings, records showing that the VOC content is no greater than 1.0 lb VOC/lb solids.

iii) If used for applying small quantities of finishing materials, other than for touchups and repair, records of total finishing materials usage and quantity applied with air spray gun.

–40 CFR 63.803(h), 40 CFR 63.806(e)(4)

g) Formulation assessment plan for finishing operations

i) The permittee has maintained MSDS for coatings containing VHAP of potential concern.

ii) The permittee has maintained usage records for coatings containing VHAP of potential concern.

–40 CFR 63.803(l), 40 CFR 63.806(e)(5)

h) Limitation on chemical composition of cleaning/washoff solvents: The permittee has maintained MSDS for all solvents used for cleaning and/or washoff.

–40 CFR 63.803(e)

B. The permittee must submit an initial compliance status report and semiannual continuous compliance status reports. The following summarizes the information that should be included in the initial compliance status report. The initial compliance status report must be submitted no later than 60 days after the compliance date:

a) Averaging – Results of averaging calculation for the first month, starting the first day of the month in which the compliance date falls.

b) Compliant contact adhesives -Statement that the permittee has used compliant contact and/or foam adhesives.

c) Compliant spray booth coatings- Statement that the permittee has used compliant spray booth coatings.

d) Compliance with work practice standards – Statement that the permittee has developed a work practice implementation plan and has established procedures for implementing the provisions of the plan.

- 40 CFR 63.807(b)

C. The first semiannual compliance status report must be submitted no later than 30 calendar days after the end of the first 6-month period following the permittee's compliance date. Subsequent reports must be submitted no later than 30 calendar days after the end of each 6-month period. The following summarizes the information that should be included in the semiannual status report. In cases of noncompliance, the permittee must describe measures taken to bring the affected source into compliance. The semiannual continuous compliance report must be signed by the responsible official of the permittee

a) Averaging – Results of the averaging equation for each month within that semiannual period and a statement that the value of E as calculated by Equation 1 is no greater than 1.0.

b) Compliant contact adhesives- Statement that compliant contact and/or foam adhesives have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant contact and/or foam adhesives were used.

c) Compliant spray booth coatings- Statement that compliant strippable spray booth coatings have been used each day in the semiannual reporting period, or should otherwise identify each day noncompliant materials were used.

d) Compliance with work practice standards – Statement that the work practice implementation plan is being followed, or, if any provisions of the plan have not been followed during the reporting period, a description of the violation and the time period during which it occurred.

D. If the permittee is required to provide a written notification of VHAP baseline exceedence as described under Work Practice Implementation Plan f iii the notification shall include one or more statements that explains the reasons for the usage increase. The notification shall be submitted no later than 30 calendar days after the end of the annual period in which the usage increase occurred.

- 40 CFR 63.807

Prohibited Activities:

A. The permittee shall not operate any affected source in violation of the requirements of this part except under:
   a) An extension of compliance granted by the Administrator under this part; or
   b) An extension of compliance granted under this part by a State with an approved permit program; or
   c) An exemption from compliance is granted by the President under section 112(i)(4) of the Act.

The permittee shall not fail to keep records, notify, report, or revise reports as required under this part.

Circumvention:

The permittee shall not build, erect, install, or use any article, machine, equipment, or process to conceal an emission that would otherwise constitute noncompliance with a relevant standard. Such concealment includes, but is not limited to:

e) The use of diluents to achieve compliance with a relevant standard based on the concentration of a pollutant in the effluent discharged to the atmosphere.
f) The use of gaseous diluents to achieve compliance with a relevant standard for visible emissions.
g) The fragmentation of an operation such that the operation avoids regulation by a relevant standard.

- 40 CFR 63.4

Authority for Requirement: 40 CFR 63 Subpart JJ and Subpart A (General Provisions)
567 IAC 23.1(4)"aj"

III. Emission Point-Specific Conditions

Facility Name: Woodharbor Molding and Millwork, Inc.
Permit Number: **00-TV-027-M003**

Emission Point ID Number: 1

Associated Equipment

Associated Emission Unit ID Number: 1
Emissions Control Equipment ID Number: CE-1
Emissions Control Equipment Description: Dry Filter

Applicable Requirements

Emission Unit vented through this Emission Point: 1
Emission Unit Description: Topcoat Spray Booth
Raw Material/Fuel: Wood Topcoat
Rated Capacity: 30 oz./min

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: Iowa DNR Construction Permit 94-A-480-S4
567 IAC 23.3(2)"d"

[(1)] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 94-A-480-S4
567 IAC 23.4(13)

Pollutant: PM_{10}
Emission Limit(s): 0.805 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 94-A-480-S4

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month (lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: 40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: 40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Process throughput:

A. A total of three spray guns may be used in this booth. The total spray capacity of the three spray guns shall not exceed 30 fl oz/min.
B. The quantity of spray material shall be limited to 3,744 gallons per twelve-month rolling period, rolled monthly.
C. The VOC content of the spray material shall be limited to 8.5 lb./gallon.

Control equipment parameters: The filters shall be maintained according to manufacturer's specifications and rated at 95% control efficiency or better.

Work practice standards: Work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:
All records, as required by this permit shall be kept on-site for a minimum of five (5) years (unless otherwise stated in NESHAP Subpart JJ) and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner, and shall include the following:

A. All record keeping requirements of 40 CFR 63.806 and reporting requirements stated in 40 CFR 63.807.
B. The number of spray guns used and their specifications.
C. The quantity of spray material used per twelve-month period rolled monthly.
D. The VOC content of all spray materials used.
E. A record of all maintenance and replacement of the filters.

Authority for Requirement: Iowa DNR Construction Permit 94-A-480-S4

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height, (ft, from ground): 30 feet
Stack Opening, (inches, dia.): 24 inches
Exhaust Flow Rate (scfm): 9,400
Exhaust Temperature (^{o}F): Ambient
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permit 94-A-480-S4

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Paint Booth Filter Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 2

Associated Equipment

Associated Emission Unit ID Numbers: 2
Emissions Control Equipment ID Number: CE-2
Emissions Control Equipment Description: Dry Filter

Applicable Requirements

Emission Unit vented through this Emission Point: 2
Emission Unit Description: Sealer Spray Booth
Raw Material/Fuel: Wood Sealer
Rated Capacity: 30 oz./min

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: Iowa DNR Construction Permit 94-A-481-S4
567 IAC 23.3(2)"d"

[(1)] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 94-A-481-S4
567 IAC 23.4(13)

Pollutant: PM_{10}
Emission Limit(s): 0.805 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 94-A-481-S4

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month (lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: 40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: 40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Process throughput:

A. A total of three spray guns may be used in this booth. The total spray capacity of the three spray guns shall not exceed 30 fl oz/min.
B. The quantity of spray material shall be limited to 3,744 gallons per twelve-month rolling period.
C. The VOC content of the spray material shall be limited to 8.5 lb./gallon.

Control equipment parameters: The filters shall be maintained according to manufacturer's specifications and rated at 95% control efficiency or better.

Work practice standards: Work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:
All records, as required by this permit shall be kept on-site for a minimum of five (5) years (unless otherwise stated in NESHAP Subpart JJ) and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner, and shall include the following:

A. All record keeping requirements of 40 CFR 63.806 and reporting requirements stated in 40 CFR 63.807.
B. The number of spray guns used and their specifications.
C. The quantity of spray material used per twelve-month period rolled monthly.
D. The VOC content of all spray materials used.
E. A record of all maintenance and replacement of the filters.

Authority for Requirement: Iowa DNR Construction Permit 94-A-481-S4

Compliance Plan
The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics
This emission point shall conform to the specifications listed below.

Stack Height, (ft, from ground): 30 feet
Stack Opening, (inches, dia.): 24 inches
Exhaust Flow Rate (scfm): 9,400
Exhaust Temperature (^{o}F): Ambient
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permit 94-A-481-S4

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Spray Coating Booth Filter Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 3

Associated Equipment

Associated Emission Unit ID Numbers: 3
Emissions Control Equipment ID Number: CE-3
Emissions Control Equipment Description: Dry Filter

Applicable Requirements

Emission Unit vented through this Emission Point: 3
Emission Unit Description: Stain Spray Booth
Raw Material/Fuel: Wood Stain
Rated Capacity: 30 oz./min

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%(1)
Authority for Requirement: Iowa DNR Construction Permit 94-A-482-S5
567 IAC 23.3(2)"d"

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 94-A-482-S5
567 IAC 23.4(13)

Pollutant: PM_{10}
Emission Limit(s): 1.543 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 94-A-482-S5

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month

(lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: 40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: 40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Process throughput:

A. A total of three spray guns may be used in this booth. The total spray capacity of the three spray guns shall not exceed 30 fl oz/min.
B. The quantity of spray material shall be limited to 3,744 gallons per twelve-month rolling period.
C. The VOC content of the spray material shall be limited to 8.5 lb./gallon.

Control equipment parameters: The filters shall be maintained according to manufacturer's specifications and rated at 95% control efficiency or better.

Work practice standards: Work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:
All records, as required by this permit shall be kept on-site for a minimum of five (5) years (unless otherwise stated in NESHAP Subpart JJ) and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner, and shall include the following:

A. All record keeping requirements of 40 CFR 63.806 and reporting requirements stated in 40 CFR 63.807.
B. The number of spray guns used and their specifications.
C. The quantity of spray material used per twelve-month period rolled monthly.
D. The VOC content of all spray materials used.
E. A record of all maintenance and replacement of the filters.

Authority for Requirement: Iowa DNR Construction Permit 94-A-482-S5

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height, (ft, from ground): 30 feet
Stack Opening, (inches, dia.): 24 inches
Exhaust Flow Rate (scfm): 18,000
Exhaust Temperature (^{o}F): Ambient
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permit 94-A-482-S5

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Spray Coating Booth Filter Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 4

Associated Equipment

Associated Emission Unit ID Numbers: 4

Applicable Requirements

Emission Unit vented through this Emission Point: 4
Emission Unit Description: Welding Bench
Raw Material/Fuel: Welding Wire
Rated Capacity: 0.69 lb./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 94-A-483-S2
567 IAC 23.3(2)"d"

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of (25%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file an "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 94-A-483-S2
567 IAC 23.3(2)"a"

Pollutant: PM_{10}
Emission Limit(s): 0.18 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 94-A-483-S2

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Reporting & Record keeping:
All records, as required below, shall be satisfactory for demonstrating compliance with all applicable operating limits. Records must be maintained onsite for at least five (5) years.

The owner or operator of the equipment shall maintain the following records:

A. Record the type and amount of welding wire used in this unit. Calculate and record monthly and 12-month rolling totals.

Authority for Requirement: Iowa DNR Construction Permit 94-A-483-S2

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Source Emission Characteristics

This equipment shall be connected to the stack specified below.

Stack Height: 30 feet (1)
Stack Diameter: 12 inches
Exhaust Flow Rate: 2,500 cfm
Exhaust Temperature: Ambient
(1) Obstructed, vertical discharge
Authority for Requirement: Iowa DNR Construction Permit 94-A-483-S2

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 5

Associated Equipment

Associated Emission Unit ID Numbers: 5
Emissions Control Equipment ID Number: CE-5
Emissions Control Equipment Description: Cyclone with Baghouse

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Applicable Requirements

Emission Unit vented through this Emission Point: 5
Emission Unit Description: Various Woodworking Processes
Raw Material/Fuel: Wood
Rated Capacity: 1200 lb./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.02 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 95-A-793-S1
567 IAC 23.3(2)"a"

Compliance Plan
The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Source Emission Characteristics
The source shall be connected to the stack as designated below.

Height: 35.85 ft.
Emission Point Size: 38 in. x 38 in.
Exhaust Flow Rate: 23,850 dscfm
Exhaust Temperature: $70\ ^{0}$F
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permit 95-A-793-S1

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 6

Associated Equipment

Associated Emission Unit ID Numbers: 5
Emissions Control Equipment ID Number: CE-5
Emissions Control Equipment Description: Cyclone with Baghouse

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Applicable Requirements

Emission Unit vented through this Emission Point: 5
Emission Unit Description: Various Woodworking Processes
Raw Material/Fuel: Wood
Rated Capacity: 1200 lb./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter (PM)
Emission Limit(s): 1.02 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 95-A-794-S1
567 IAC 23.3(2)"a"

Compliance Plan
The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Source Emission Characteristics
The source shall be connected to the stack as designated below.

Height: 35.85 ft.
Emission Point Size: 38 in. x 38 in.
Exhaust Flow Rate: 23,850 dscfm
Exhaust Temperature: $70\ ^{0}$F
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permit 95-A-794-S1

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 7

Associated Equipment

Associated Emission Unit ID Numbers: 7
Emissions Control Equipment ID Number: CE-7
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 7
Emission Unit Description: Various Woodworking Processes
Raw Material/Fuel: Wood
Rated Capacity: 1,200 lb./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%(1)
Authority for Requirement: Iowa DNR Construction Permit 98-A-063-S1
567 IAC 23.3(2)"d"

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file an "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./dscf(2)
Authority for Requirement: Iowa DNR Construction Permit 98-A-063-S1
567 IAC 22.108(13)

(2)This limit was requested by the applicant.

Compliance Plan
The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics
This emission point shall conform to the specifications listed below:

Stack Height (ft.,from the ground): 29 feet 7 inches
Stack Opening (in. by in.): 25 inches by 32 inches
Stack Discharge Style: Downward
Exhaust Flow Rate (scfm): 29,950
Exhaust Temperature (^{0}F): Ambient
Authority for Requirement: Iowa DNR Construction Permit 98-A-063-S1

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.
Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 8

Associated Equipment

Associated Emission Unit ID Numbers: 8
Emissions Control Equipment ID Number: CE-8
Emissions Control Equipment Description: Dry Filter

Applicable Requirements

Emission Unit vented through this Emission Point: 8
Emission Unit Description: Topcoat Spray Booth
Raw Material/Fuel: Wood Topcoat
Rated Capacity: 30 oz./min

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: Iowa DNR Construction Permit 98-A-064-S4
567 IAC 23.3(2)"d"

[(1)] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 98-A-064-S4
567 IAC 23.4(13)

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month (lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids

(lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: 40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: 40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Process throughput:

A. A total of three spray guns may be used in this booth. The total spray capacity of the three spray guns shall not exceed 30 fl oz/min.
B. The quantity of spray material shall be limited to 3,744 gallons per twelve-month rolling period.
C. The VOC content of the spray material shall be limited to 8.5 lb./gallon.

Control equipment parameters: The filters shall be maintained according to manufacturer's specifications and rated at 95% control efficiency or better.

Work practice standards: Work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:

All records, as required by this permit shall be kept on-site for a minimum of five (5) years (unless otherwise stated in NESHAP Subpart JJ) and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner, and shall include the following:

A. All record keeping requirements of 40 CFR 63.806 and reporting requirements stated in 40 CFR 63.807.
B. The number of spray guns used and their specifications.
C. The quantity of spray material used per twelve-month period rolled monthly.

D. The VOC content of all spray materials used.
E. A record of all maintenance and replacement of the filters.

Authority for Requirement: Iowa DNR Construction Permit 98-A-064-S4

Compliance Plan
The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics
This emission point shall conform to the specifications listed below.

Stack Height (ft., from the ground): 32 feet
Discharge Style: Vertical
Stack Opening, (inches, dia.): 34 inches
Exhaust Flow Rate (scfm): 14,852
Exhaust Temperature (^{o}F): Ambient
Authority for Requirement: Iowa DNR Construction Permit 98-A-064-S4

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Spray Coating Booth Filter Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 9

Associated Equipment

Associated Emission Unit ID Numbers: 9
Emissions Control Equipment ID Number: CE-9
Emissions Control Equipment Description: Dry Filter

Applicable Requirements

Emission Unit vented through this Emission Point: 9
Emission Unit Description: Sealer Spray Booth
Raw Material/Fuel: Wood Sealer
Rated Capacity: 30 oz./min

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%(1)
Authority for Requirement: Iowa DNR Construction Permit 98-A-065-S4
567 IAC 23.3(2)"d"

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 98-A-065-S4
567 IAC 23.4(13)

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month (lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids

(lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: 40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: 40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Process throughput:

A. A total of three spray guns may be used in this booth. The total spray capacity of the three spray guns shall not exceed 30 fl oz/min.
B. The quantity of spray material shall be limited to 3,744 gallons per twelve month rolling period
C. The VOC content of the spray material shall be limited to 8.5 lb./gallon.

Control equipment parameters: The filters shall be maintained according to manufacturer's specifications and rated at 95% control efficiency or better.

Work practice standards: Work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:

All records, as required by this permit shall be kept on-site for a minimum of five (5) years (unless otherwise stated in NESHAP Subpart JJ) and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner, and shall include the following:

A. All record keeping requirements of 40 CFR 63.806 and reporting requirements stated in

40 CFR 63.807.
B. The number of spray guns used and their specifications.
C. The quantity of spray material used per twelve-month period rolled monthly.
D. The VOC content of all spray materials used.
E. A record of all maintenance and replacement of the filters.

Authority for Requirement: Iowa DNR Construction Permit 98-A-065-S4

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height (ft., from the ground): 32 feet
Discharge Style: Vertical
Stack Opening, (inches, dia.): 34 inches
Exhaust Flow Rate (scfm): 14,852
Exhaust Temperature (^{o}F): Ambient
Authority for Requirement: Iowa DNR Construction Permit 98-A-065-S4

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Spray Coating Booth Filter Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 10

Associated Equipment

Associated Emission Unit ID Numbers: 10
Emissions Control Equipment ID Number: CE-10
Emissions Control Equipment Description: Dry Filter

Applicable Requirements

Emission Unit vented through this Emission Point: 10
Emission Unit Description: Stain Spray Booth
Raw Material/Fuel: Wood Stain
Rated Capacity: 30 oz./min

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%(1)
Authority for Requirement: Iowa DNR Construction Permit 98-A-066-S4
567 IAC 23.3(2)"d"

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 98-A-066-S4
567 IAC 23.4(13)

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month (lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids

(lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: 40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: 40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Process throughput:

A. A total of three spray guns may be used in this booth. The total spray capacity of the three spray guns shall not exceed 30 fl oz/min.
B The quantity of spray material shall be limited to 3,744 gallons per twelve month period
C. The VOC content of the spray material shall be limited to 8.5 lb./gallon.

Control equipment parameters: The filters shall be maintained according to manufacturer's specifications and rated at 95% control efficiency or better.

Work practice standards: Work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:

All records, as required by this permit shall be kept on-site for a minimum of five (5) years (unless otherwise stated in NESHAP Subpart JJ) and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner, and shall include the following:

A. All record keeping requirements of 40 CFR 63.806 and reporting requirements stated in

40 CFR 63.807.
B. The number of spray guns used and their specifications.
C. The quantity of spray material used per twelve-month period rolled monthly.
D. The VOC content of all spray materials used.
E. A record of all maintenance and replacement of the filters.

Authority for Requirement: Iowa DNR Construction Permit 98-A-066-S4

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height (ft., from the ground): 32 feet
Discharge Style: Vertical
Stack Opening, (inches, dia.): 34 inches
Exhaust Flow Rate (scfm): 12,138
Exhaust Temperature (^{o}F): Ambient
Authority for Requirement: Iowa DNR Construction Permit 98-A-066-S4

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Spray Coating Booth Filter Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 11

Associated Equipment

Associated Emission Unit ID Numbers: 11

Applicable Requirements

Emission Unit vented through this Emission Point: 11
Emission Unit Description: Timesaver Sander #1
Raw Material/Fuel: Wood
Rated Capacity: 1,200 lb./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 20%
Authority for Requirement: Iowa DNR Construction Permit 98-A-469

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 98-A-469
567 IAC 23.3(2)"a"

Compliance Plan
The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Source Emission Characteristics
This equipment shall be connected to the stack specified below.

Stack Height: 36 feet (10 feet from bldg.)
Stack Diameter: 12 inches
Exhaust Flow Rate: 2,100 scfm
Exhaust Temperature: 70 ^{o}F
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permit 98-A-469

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 12

Associated Equipment

Associated Emission Unit ID Numbers: 12

Applicable Requirements

Emission Unit vented through this Emission Point: 12
Emission Unit Description: Timesaver Sander #2
Raw Material/Fuel: Wood
Rated Capacity: 1,200 lb./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 20%
Authority for Requirement: Iowa DNR Construction Permit 98-A-470

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.1 gr./scf
Authority for Requirement: Iowa DNR Construction Permit 98-A-470
567 IAC 23.3(2)"a"

Compliance Plan
The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Source Emission Characteristics
This equipment shall be connected to the stack specified below.

Stack Height: 36 feet (10 feet from bldg.)
Stack Diameter: 12 inches
Exhaust Flow Rate: 2,100 scfm
Exhaust Temperature: 70 ^{o}F
Vertical, Unobstructed Discharge Required: Yes ☐ No ☒
Authority for Requirement: Iowa DNR Construction Permit 98-A-470

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 13

Associated Equipment

Associated Emission Unit ID Numbers: 13
Emissions Control Equipment ID Number: CE-13
Emissions Control Equipment Description: Dry Filter

Applicable Requirements

Emission Unit vented through this Emission Point: 13
Emission Unit Description: Studio Spray Booth
Raw Material/Fuel: Wood Topcoats
Rated Capacity: 17.0 oz./min

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limits: 40 %(1)
Authority for Requirement: Iowa DNR Construction Permit 99-A-414-S1
567 IAC 23.3(2)"d"

(1) If visible emissions are observed other than startup, shutdown or malfunction, a stack test may be required to demonstrate compliance with the particulate standard.

Pollutant: Particulate Matter
Emission Limits: 0.01 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 99-A-414-S1
567 IAC 23.4(13)

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month (lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: 40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: 40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Process throughput:

A. The quantity of spray material shall be limited to 520 gallons per twelve-month period rolled monthly.
B. TheVOC content of the spray material shall be limited to 8.5 lb./gal.
C. No more than one spray gun with a maximum spray capacity equal to or less than 17.0 fl oz./min shall be operated in this booth.

Work practice standards: Work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:

All records, as required by this permit shall be kept on-site for a minimum of five (5) years (unless otherwise stated in NESHAP Subpart JJ) and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner, and shall include the following:

A. All record keeping requirements of 40 CFR 63.806 and reporting requirements stated in 40 CFR 63.807.
B. The number of spray guns used and their specifications.
C. The quantity of spray material used per twelve-month period rolled monthly.
D. The VOC content of all spray materials used.

E. A record of all maintenance and replacement of the filters.

Authority for Requirement: Iowa DNR Construction Permit 99-A-414-S1

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics
This emission point shall conform to the specifications listed below.

Stack Height (ft., from the ground): 30 feet
Discharge Style: Vertical
Stack Opening, (inches, dia.): 12 inches
Exhaust Flow Rate (scfm): 1,500
Exhaust Temperature (^{o}F): Ambient
Authority for Requirement: Iowa DNR Construction Permit 99-A-414-S1

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Spray Coating Booth Filter Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 14

Associated Equipment

Associated Emission Unit ID: 14
Emissions Control Equipment ID Number: CE-14
Emissions Control Equipment Description: Dry Filter

Applicable Requirements

Emission Unit vented through this Emission Point: 14
Emission Unit Description: Custom Finish Spray Booth
Raw Material/Fuel: Wood Topcoats
Rated Capacity: 30 oz./min

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limits: 40 %[(1)]
Authority for Requirement: Iowa DNR Construction Permit 99-A-415-S2
567 IAC 23.3(2)"d"

[(1)] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter
Emission Limits: 0.01 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 99-A-415-S2
567 IAC 23.3(13)

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month (lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids

(lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: 40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: 40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Process throughput:

A. The quantity of spray material shall be limited to 3,750 gallons per twelve-month period rolled monthly.
B. TheVOC content of the spray material shall be limited to 8.5 lb./gal.
C. A total of three spray guns may be used in this booth. The total spray capacity of the three spray guns shall not exceed 30 fl oz/min.

Work practice standards: Work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:

All records, as required by this permit shall be kept on-site for a minimum of five (5) years (unless otherwise stated in NESHAP Subpart JJ) and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner, and shall include the following:

A. All record keeping requirements of 40 CFR 63.806 and reporting requirements stated in

40 CFR 63.807.

B. The number of spray guns used and their specifications.
C. The quantity of spray material used per twelve-month period rolled monthly.
D. The VOC content of all spray materials used.
E. A record of all maintenance and replacement of the filters.

Authority for Requirement: Iowa DNR Construction Permit 99-A-415-S2

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics
This emission point shall conform to the specifications listed below.

Stack Height (ft., from the ground): 30 feet
Discharge Style: Vertical
Stack Opening, (inches, dia.): 34 inches
Exhaust Flow Rate (scfm): 13,150
Exhaust Temperature (^{o}F): Ambient
Authority for Requirement: Iowa DNR Construction Permit 99-A-415-S2

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Spray Coating Booth Filter Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 15

Associated Equipment

Associated Emission Unit ID Numbers: 15
Emissions Control Equipment ID Number: CE-15
Emissions Control Equipment Description: Dry Filter

Applicable Requirements

Emission Unit vented through this Emission Point: 15
Emission Unit Description: Custom Finish Spray Booth
Raw Material/Fuel: Wood Topcoats
Rated Capacity: 30 oz./min

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limits: 40 %[(1)]
Authority for Requirement: Iowa DNR Construction Permit 99-A-416-S2
567 IAC 23.3(2)"d"

[(1)] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter
Emission Limits: 0.01 gr/dscf
Authority for Requirement: Iowa DNR Construction Permit 99-A-416-S2
567 IAC 23.3(13)

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month (lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids

(lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: 40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: 40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Process throughput:

A. The quantity of spray material shall be limited to 3,750 gallons per twelve-month period rolled monthly.
B. TheVOC content of the spray material shall be limited to 8.5 lb./gal.
C. A total of three spray guns may be used in this booth. The total spray capacity of the three spray guns shall not exceed 30 fl oz/min.

Work practice standards: Work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:

All records, as required by this permit shall be kept on-site for a minimum of five (5) years (unless otherwise stated in NESHAP Subpart JJ) and shall be available for inspection by the DNR. Records shall be legible and maintained in an orderly manner, and shall include the following:

A. All record keeping requirements of 40 CFR 63.806 and reporting requirements stated in 40 CFR 63.807.
B. The number of spray guns used and their specifications.
C. The quantity of spray material used per twelve-month period rolled monthly.

D. The VOC content of all spray materials used.
E. A record of all maintenance and replacement of the filters.

Authority for Requirement: Iowa DNR Construction Permit 99-A-416-S2

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics
This emission point shall conform to the specifications listed below.

Stack Height (ft., from the ground): 30 feet
Discharge Style: Vertical
Stack Opening, (inches, dia.): 34 inches
Exhaust Flow Rate (scfm): 13,150
Exhaust Temperature (^{o}F): Ambient
Authority for Requirement: Iowa DNR Construction Permit 99-A-416-S2

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Spray Coating Booth Filter Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 16

Associated Equipment

Associated Emission Unit ID Numbers: 16

Applicable Requirements

Emission Unit vented through this Emission Point: 16
Emission Unit Description: Adhesive Application (Fugitive)
Raw Material/Fuel: Adhesives
Rated Capacity: 4.73 gal./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Volatile Organic Compounds (VOC)
Emission Limit(s): 3.18 tons/yr[(1)]
[(1)] This limit was requested by the applicant.
Authority for Requirement:567 IAC 22.108(13)

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from contact adhesives used for the manufacture of wood furniture or wood furniture parts by achieving a VHAP limit for contact adhesives based on the following criteria:

A. For foam adhesives (contact adhesives used for upholstery operations) used in products that meet the upholstered seating flammability requirements of California Technical Bulletin 116, 117, or 133, the Business and Institutional Furniture Manufacturers Association (BIFMA's)X5.7, UFAC flammability testing, or any similar requirements from local, State, or Federal fire regulatory agencies, the VHAP content of the adhesive shall not exceed 1.8 kg VHAP/kg solids (1.8 lb VHAP/lb solids), as applied; or
B. For all other contact adhesives (including foam adhesives used in products that do not meet the standards presented in paragraph (B)(a) of this section, but excluding aerosol adhesives and excluding contact adhesives applied to nonporous substrates, the VHAP content of the adhesive shall not exceed 1.0 kg VHAP/kg solids (1.0 lb VHAP/lb solids), as applied.

Authority for Requirement: 40 CFR 63.802(a)(2)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput: This source is limited to using a maximum of:
A. 325 gallons of material with a maximum VOC content of between 4.50 and 6.50 lb./gal
B. 325 gallons of material with a maximum VOC content of between 0.075 and 4.50 lb./gal, and
C. 37,000 gallons of material with a maximum VOC content of 0.075 lb./gal
during any twelve-month rolling period.

Work practice standards: Work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping: ll records, as required below, shall be satisfactory for demonstrating compliance with all applicable operating limits.
Records shall be kept on-site for at least five years and shall be available for inspection by the Department. Records shall be maintained in a legible and orderly fashion, and shall indicate the following:
A. Record the amount, in gallons, of each material used at this source daily. Calculate monthly and rolling twelve-month totals.
B. Maintain all Material Safety Data Sheets (MSDS) for all materials used at this source.

Authority for Requirement: 567 IAC 22.108(13)

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 19

Associated Equipment

Associated Emission Unit ID Numbers: 19
Emissions Control Equipment ID Number: CE-19
Emissions Control Equipment Description: Dry Filter Panel

Applicable Requirements

Emission Unit vented through this Emission Point: 19
Emission Unit Description: Stain Booth
Raw Material/Fuel: Wood Stain
Rated Capacity: 17.0 oz./min

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 00-A-709
567 IAC 23.3(2)"d"

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file an "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 00-A-709
567 IAC 23.4(13)

Pollutant: PM_{10}
Emission Limit(s): 0.231 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 00-A-709

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month

(lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: Iowa DNR Construction Permit 00-A-709
40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: Iowa DNR Construction Permit 00-A-709
40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Process throughput:

A. The quantity of spray material shall be limited to 3,900 gallons per twelve-month period Rolled monthly.
B. The VOC content of the spray material used shall not be greater than 8.51 pounds per gallon.

Work practice standards: All work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:

This facility is subject to NESHAPS subpart JJ. Unless otherwise stated in the subpart, records Must be maintained onsite for at least five years and made available to the DNR upon request. Records shall be maintained in a legible manner and shall indicate the following:

A. All record keeping requirements of 40 CFR 63.806.
B. All reporting requirements of 40 CFR 63.807.
C. The quantity of spray materials used per twelve-month period, rolled monthly.
D. The VOC content of all spray material used.
E. A monthly log of the total amount, measured in gallons, of each material used in the spray booth of this permit.

Authority for Requirement: Iowa DNR Construction Permit 00-A-709

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height (ft., from the ground): 28
Discharge Style: Vertical
Stack Opening (inches, dia.): 34
Exhaust Flow Rate (scfm): 13,450
Exhaust Temperature (^{o}F): Ambient
Authority for Requirement: Iowa DNR Construction Permit 00-A-709

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐

Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Spray Coating Booth Filter Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 20

Associated Equipment

Associated Emission Unit ID Numbers: 20
Emissions Control Equipment ID Number: CE-20
Emissions Control Equipment Description: Dry Filter Panel

Applicable Requirements

Emission Unit vented through this Emission Point: 20
Emission Unit Description: Sealer/Topcoat Booth
Raw Material/Fuel: Wood Sealer and Topcoat
Rated Capacity: 17.0 oz./min

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 00-A-710
567 IAC 23.3(2)"d"

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file an "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 00-A-710
567 IAC 23.4(13)

Pollutant: PM_{10}
Emission Limit(s): 0.231 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 00-A-710

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month (lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: Iowa DNR Construction Permit 00-A-710
40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: Iowa DNR Construction Permit 00-A-710
40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Process throughput:

A. The quantity of spray material shall be limited to 3,900 gallons per twelve-month period Rolled monthly.
B. The VOC content of the spray material used shall not be greater than 8.51 pounds per gallon.

Work practice standards: All work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:

This facility is subject to NESHAPS subpart JJ. Unless otherwise stated in the subpart, records Must be maintained onsite for at least five years and made available to the DNR upon request. Records shall be maintained in a legible manner and shall indicate the following:

A. All record keeping requirements of 40 CFR 63.806.
B. All reporting requirements of 40 CFR 63.807.
C. The quantity of spray materials used per twelve-month period, rolled monthly.
D. The VOC content of all spray material used.
E. A monthly log of the total amount, measured in gallons, of each material used in the spray booth of this permit.

Authority for Requirement: Iowa DNR Construction Permit 00-A-709

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height (ft., from the ground): 28
Discharge Style: Vertical
Stack Opening (inches, dia.): 34
Exhaust Flow Rate (scfm): 13,450
Exhaust Temperature (^{o}F): Ambient
Authority for Requirement: Iowa DNR Construction Permit 00-A-710

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Paint Booth Filter Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 21

Associated Equipment

Associated Emission Unit ID Numbers: 21
Emissions Control Equipment ID Number: CE-21
Emissions Control Equipment Description: Dry Filter Panel

Applicable Requirements

Emission Unit vented through this Emission Point: 21
Emission Unit Description: Glaze Booth
Raw Material/Fuel: Glazes, Primers, and Sealers
Rated Capacity: 17.0 oz./min

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 00-A-711
567 IAC 23.3(2)"d"

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file an "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 00-A-711
567 IAC 23.4(13)

Pollutant: PM_{10}
Emission Limit(s): 0.231 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 00-A-711

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month

(lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: Iowa DNR Construction Permit 00-A-711
40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: Iowa DNR Construction Permit 00-A-711
40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Process throughput:

A. The quantity of spray material shall be limited to 1,300 gallons per twelve-month period Rolled monthly.
B. The VOC content of the spray material used shall not be greater than 8.51 pounds per gallon.

Work practice standards: All work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:

This facility is subject to NESHAPS subpart JJ. Unless otherwise stated in the subpart, records Must be maintained onsite for at least five years and made available to the DNR upon request. Records shall be maintained in a legible manner and shall indicate the following:

A. All record keeping requirements of 40 CFR 63.806.
B. All reporting requirements of 40 CFR 63.807.
C. The quantity of spray materials used per twelve-month period, rolled monthly.
D. The VOC content of all spray material used.
E. A monthly log of the total amount, measured in gallons, of each material used in the spray booth of this permit.

Authority for Requirement: Iowa DNR Construction Permit 00-A-711

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height (ft., from the ground): 28
Discharge Style: Vertical
Stack Opening (inches, dia.): 34
Exhaust Flow Rate (scfm): 13,450
Exhaust Temperature (^{o}F): Ambient
Authority for Requirement: Iowa DNR Construction Permit 00-A-711

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Paint Booth Filter Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 22

Associated Equipment

Associated Emission Unit ID Numbers: 22
Emissions Control Equipment ID Number: CE-22
Emissions Control Equipment Description: Dry Filter Panel

Applicable Requirements

Emission Unit vented through this Emission Point: 22
Emission Unit Description: Sealer/Topcoat Booth
Raw Material/Fuel: Wood Sealers and Topcoats
Rated Capacity: 17.0 oz./min

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 00-A-712
567 IAC 23.3(2)"d"

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file an "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 00-A-712
567 IAC 23.4(13)

Pollutant: PM_{10}
Emission Limit(s): 0.231 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 00-A-712

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month

(lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: Iowa DNR Construction Permit 00-A-712
40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: Iowa DNR Construction Permit 00-A-712
40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Process throughput:

A. The quantity of spray material shall be limited to 3,900 gallons per twelve-month period Rolled monthly.
B. The VOC content of the spray material used shall not be greater than 8.51 pounds per gallon.

Work practice standards: All work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:

This facility is subject to NESHAPS subpart JJ. Unless otherwise stated in the subpart, records Must be maintained onsite for at least five years and made available to the DNR upon request. Records shall be maintained in a legible manner and shall indicate the following:

A. All record keeping requirements of 40 CFR 63.806.
B. All reporting requirements of 40 CFR 63.807.
C. The quantity of spray materials used per twelve-month period, rolled monthly.
D. The VOC content of all spray material used.
E. A monthly log of the total amount, measured in gallons, of each material used in the spray booth of this permit.

Authority for Requirement: Iowa DNR Construction Permit 00-A-712

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height (ft., from the ground): 28
Discharge Style: Vertical
Stack Opening (inches, dia.): 34
Exhaust Flow Rate (scfm): 13,450
Exhaust Temperature (^{o}F): Ambient
Authority for Requirement: Iowa DNR Construction Permit 00-A-712

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Paint Booth Filter Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 23

Associated Equipment

Associated Emission Unit ID Numbers: 23
Emissions Control Equipment ID Number: CE-23
Emissions Control Equipment Description: Dry Filter Panel

Applicable Requirements

Emission Unit vented through this Emission Point: 23
Emission Unit Description: Sealer/Topcoat Booth
Raw Material/Fuel: Wood Sealers and Topcoats
Rated Capacity: 17.0 oz./min

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[1]
Authority for Requirement: Iowa DNR Construction Permit 00-A-713
567 IAC 23.3(2)"d"

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedence of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedence. The permit holder shall also file an "indicator opacity exceedence report" with the DNR field office and keep records as required in the policy. If exceedences continue after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 0.01 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 00-A-713
567 IAC 23.4(13)

Pollutant: PM_{10}
Emission Limit(s): 0.231 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 00-A-713

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month

(lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: Iowa DNR Construction Permit 00-A-713
40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: Iowa DNR Construction Permit 00-A-713
40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Process throughput:

A. The quantity of spray material shall be limited to 5,200 gallons per twelve-month period Rolled monthly.
B. The VOC content of the spray material used shall not be greater than 8.51 pounds per gallon.

Work practice standards: All work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:

This facility is subject to NESHAPS subpart JJ. Unless otherwise stated in the subpart, records Must be maintained onsite for at least five years and made available to the DNR upon request. Records shall be maintained in a legible manner and shall indicate the following:

A. All record keeping requirements of 40 CFR 63.806.

B. All reporting requirements of 40 CFR 63.807.
C. The quantity of spray materials used per twelve-month period, rolled monthly.
D. The VOC content of all spray material used.
E. A monthly log of the total amount, measured in gallons, of each material used in the spray booth of this permit.

Authority for Requirement: Iowa DNR Construction Permit 00-A-713

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height (ft., from the ground): 28
Discharge Style: Vertical
Stack Opening (inches, dia.): 34
Exhaust Flow Rate (scfm): 13,450
Exhaust Temperature (^{o}F): Ambient
Authority for Requirement: Iowa DNR Construction Permit 00-A-713

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☒ No ☐
Relevant requirements of O & M plan for this equipment: Particulate Matter

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Paint Booth Filter Agency Operation & Maintenance Plan

Weekly

- Inspect the paint booth system for conditions that reduce the operating efficiency of the collection system. This will include a visual inspection of the condition of the filter material.
- Maintain a written record of the observation and any action resulting from the inspection.

Record Keeping and Reporting

Maintenance and inspection records will be kept for five years and available upon request.

Quality Control

- The filter equipment will be operated and maintained according to the manufacturers recommendations.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 24A

Associated Equipment

Associated Emission Unit ID Numbers: 24

Applicable Requirements

Emission Unit vented through this Emission Point: 24
Emission Unit Description: Pump Room/Inventory Holding Area
Raw Material/Fuel: Wood Finishers and Thinners
Rated Capacity: N/A

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month (lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: Iowa DNR Construction Permit 00-A-712
40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: Iowa DNR Construction Permit 00-A-712
40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Work practice standards: All work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:
This facility is subject to NESHAPS subpart JJ. Unless otherwise stated in the subpart, records Must be maintained onsite for at least five years and made available to the DNR upon request. Records shall be maintained in a legible manner and shall indicate the following:
A. All record keeping requirements of 40 CFR 63.806.
B. All reporting requirements of 40 CFR 63.807.

Authority for Requirement: Iowa DNR Construction Permit 00-A-723

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height (ft., from the ground): 24
Discharge Style: Vertical
Stack Opening (inches, dia.): 30
Exhaust Flow Rate (scfm): 1,200
Exhaust Temperature (^{o}F): Ambient
Authority for Requirement: Iowa DNR Construction Permit 00-A-723

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 24B

Associated Equipment

Associated Emission Unit ID Numbers: 24

Applicable Requirements

Emission Unit vented through this Emission Point: 24
Emission Unit Description: Pump Room/Inventory Holding Area
Raw Material/Fuel: Wood Finishers and Thinners
Rated Capacity: N/A

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

The permittee shall limit VHAP (volatile hazardous air pollutant) emissions from finishing operations by calculating the average VHAP content of all finishing materials used in wood furniture and wood furniture component manufacture using the equation below and maintaining a value of E no greater than 1.0;

$E=(M_{c1}C_{c1}+M_{c2}C_{c2}+***+M_{cn}C_{cn}+S_1W_1+S_2W_2+***+S_nW_n)/(M_{c1}+M_{c2}+***+M_{cn})$ *Equation 1*

Where M_c = the mass of solids in finishing material (c), used monthly, kg solids/month (lb solids/month).

C_c = the VHAP content of a finishing material (c), in kilograms of volatile hazardous air pollutants per kilogram of coating solids (kg VHAP/kg solids), as supplied, or pounds of volatile hazardous air pollutants per pound of coating solids (lb VHAP/ lb solids).

S = the VHAP content of a solvent, expressed as a weight fraction, added to finishing materials.

W = the amount of solvent, in kilograms (pounds), added to finishing materials during the monthly averaging period.

Authority for Requirement: Iowa DNR Construction Permit 00-A-712
40 CFR 63.802(a)(1)
567 IAC 23.1(4)"aj"

The permittee shall limit HAP emissions from strippable spray booth coatings by using coatings that contain no more than 0.8 kg VOC/kg solids (0.8 lb VOC/lb solids), as applied.

Authority for Requirement: Iowa DNR Construction Permit 00-A-712
40 CFR 63.802(a)(3)
567 IAC 23.1(4)"aj"

Operational Limits & Requirements

The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Compliance procedures and monitoring requirements per 40 CFR 63.804 and performance test methods per 40 CFR 63.805 shall be followed.

All spray materials shall meet the emission limits requirements per 40 CFR 63.802 which include but are not limited to limiting the VHAP emissions from finishing operations, contact adhesives and strippable spray booth coatings.

Work practice standards: All work practice standards as outlined in 40 CFR 63.803 shall be followed.

Reporting & Record keeping:
This facility is subject to NESHAPS subpart JJ. Unless otherwise stated in the subpart, records Must be maintained onsite for at least five years and made available to the DNR upon request. Records shall be maintained in a legible manner and shall indicate the following:
A. All record keeping requirements of 40 CFR 63.806.
B. All reporting requirements of 40 CFR 63.807.

Authority for Requirement: Iowa DNR Construction Permit 00-A-724

Compliance Plan

The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics

This emission point shall conform to the specifications listed below.

Stack Height (ft., from the ground): 24
Discharge Style: Vertical
Stack Opening (inches, dia.): 30
Exhaust Flow Rate (scfm): 1,200
Exhaust Temperature (^{o}F): Ambient
Authority for Requirement: Iowa DNR Construction Permit 00-A-724

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 25

Associated Equipment

Associated Emission Unit ID Numbers: 25
Emissions Control Equipment ID Number: CE-25
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 25
Emission Unit Description: Various Woodworking Processes
Raw Material/Fuel: Wood
Rated Capacity: 1200 lb./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%(1)
Authority for Requirement: Iowa DNR Construction Permit 01-A-1069
567 IAC 23.3(2)"d"

(1) Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 3.53 lb./hr and 0.01 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 01-A-1069

Pollutant: PM_{10}
Emission Limit(s): 3.53 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 01-A-1069

Compliance Plan
The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 30
Stack Diameter (inches): 60
Stack Exhaust Flow Rate (scfm): 41,181
Stack Temperature (^{o}F): 70
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 01-A-1069

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 2-1

Associated Equipment

Associated Emission Unit ID Numbers: 2-1
Emissions Control Equipment ID Number: CE-2-1
Emissions Control Equipment Description: Baghouse

Applicable Requirements

Emission Unit vented through this Emission Point: 2-1
Emission Unit Description: Various Woodworking Processes
Raw Material/Fuel: Wood
Rated Capacity: 1200 lb./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

Pollutant: Opacity
Emission Limit(s): 40%[(1)]
Authority for Requirement: Iowa DNR Construction Permit 01-A-1070
567 IAC 23.3(2)"d"

[(1)] Per DNR Air Quality Policy 3-b-08, Opacity Limits, an exceedance of the indicator opacity of (10%) will require the owner/operator to promptly investigate the emission unit and make corrections to operations or equipment associated with the exceedance. The permit holder shall also file an "indicator opacity exceedance report" with the DNR field office and keep records as required in the policy. If the exceedance continues after the corrections, the DNR may require additional proof to demonstrate compliance (e.g., stack testing).

Pollutant: Particulate Matter (PM)
Emission Limit(s): 3.72 lb./hr and 0.01 gr./dscf
Authority for Requirement: Iowa DNR Construction Permit 01-A-1070

Pollutant: PM_{10}
Emission Limit(s): 3.72 lb./hr
Authority for Requirement: Iowa DNR Construction Permit 01-A-1070

Compliance Plan
The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Emission Point Characteristics
The emission point shall conform to the specifications listed below.

Stack Height (feet): 25
Stack Diameter (inches): 60
Stack Exhaust Flow Rate (scfm): 43,343
Stack Temperature (^{o}F): 70
Vertical, Unobstructed Discharge Required: Yes ☒ No ☐
Authority for Requirement: Iowa DNR Construction Permit 01-A-1070

It shall be the owner's responsibility to ensure that construction conforms with the emission point characteristics stated above. If it is determined that any of the emission point characteristics are different than stated above, the owner must notify the Department and obtain a construction permit amendment, if required.

Periodic Monitoring Requirements
The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☒ No ☐

Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.

Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.

Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.

Authority for Requirement: 567 IAC 22.108(3)"b"

Emission Point ID Number: 26

Associated Equipment

Associated Emission Unit ID Numbers: 26

Applicable Requirements

Emission Unit vented through this Emission Point: 26
Emission Unit Description: Putty Application (Fugitive)
Raw Material/Fuel: Putty
Rated Capacity: 0.103 gal./hr

Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)
The emissions from this emission point shall not exceed the levels specified below.

There are no emission limits at this time.

Operational Limits & Requirements
The owner/operator of this equipment shall comply with the operational limits and requirements listed below.

Process throughput: This source is limited to using a maximum of 900 gallons of putty during any twelve-month rolling period.

Reporting & Record keeping: All records, as required below, shall be satisfactory for demonstrating compliance with all applicable operating limits.
Records shall be kept on-site for at least five years and shall be available for inspection by the Department. Records shall be maintained in a legible and orderly fashion, and shall indicate the following:

A. Record the amount, in gallons, of each material used at this source daily. Calculate monthly and rolling twelve-month totals.

Authority for Requirement: 567 IAC 22.108(13)

Compliance Plan
The owner/operator of this equipment shall comply with the applicable requirements listed below.

This point is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which will become effective during the permit term, this source will comply with such requirements in a timely manner.

Periodic Monitoring Requirements

The owner/operator of this equipment shall comply with the periodic monitoring requirements listed below.

Agency Approved Operation & Maintenance Plan Required? Yes ☐ No ☒

Facility Maintained Operation & Maintenance Plan Required? Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)"b"

IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 22.105 (2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 22.108 (1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 22.108 (9)"b"*

G2. Permit Expiration

1. Except as provided in 567 IAC 22.104, the expiration of this permit terminates the permittee's right to operate unless a timely and complete application has been submitted for renewal. Any testing required for renewal shall be completed before the application is submitted. *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall present or mail the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Urbandale, Iowa 50322, four or more copies of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 22.107 (4)*

G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for

determining the compliance status of the source, currently and over the reporting period consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 22.108 (15)"e"*

G5. Semi-Annual Monitoring Report

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with 567 IAC 22.107(4). The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 22.108 (5)*

G6. Annual Fee

1. The permittee is required under subrule 567 IAC 22.106 to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
    a. Form 1.0 "Facility Identification";
    b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
    c. Form 5.0 "Title V annual emissions summary/fee"; and
    d. Part 3 "Application certification."
4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:
    a. Form 1.0 "Facility Identification";
    b. Form 5.0 "Title V annual emissions summary/fee";
    c. Part 3 "Application certification."
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in 567 IAC 22.115(1)"d".

G7. Inspection of Premises, Records, Equipment, Methods and Discharges

Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:

1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 22.108 (15)"b"*

G8. Duty to Provide Information

The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 22.108 (9)"e"*

G9. General Maintenance and Repair Duties

The owner or operator of any air emission source or control equipment shall:

1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

G10. Recordkeeping Requirements for Compliance Monitoring

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
    a. The date, place and time of sampling or measurements
    b. The date the analyses were performed.
    c. The company or entity that performed the analyses.
    d. The analytical techniques or methods used.
    e. The results of such analyses; and
    f. The operating conditions as existing at the time of sampling or measurement.
    g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.

3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:

a. Comply with all terms and conditions of this permit specific to each alternative scenario.

b. Maintain a log at the permitted facility of the scenario under which it is operating.

c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

G11. Evidence used in establishing that a violation has or is occurring.

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:

a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;

b. Compliance test methods specified in 567 Chapter 25; or

c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.

2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:

a. Any monitoring or testing methods provided in these rules; or

b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

G13. Hazardous Release

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 281-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in 567 IAC 131.2(2). *567 IAC Chapter 131-State Only*

G14. Excess Emissions and Excess Emissions Reporting Requirements

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a

violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

2. Excess Emissions Reporting

a. Oral Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An oral report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1)) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable visible emission standard by more than 10 percent opacity. The oral report may be made in person or by telephone and shall include as a minimum the following:

i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and expected duration of the excess emission.

iv. The cause of the excess emission.

v. The steps being taken to remedy the excess emission.

vi. The steps being taken to limit the excess emission in the interim period.

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required oral reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:

i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.

ii. The estimated quantity of the excess emission.

iii. The time and duration of the excess emission.

iv. The cause of the excess emission.

v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.

vi. The steps that were taken to limit the excess emission.

vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. *567 IAC 24.1(1)-567 IAC 24.1(4)*

3. Emergency Defense for Excess Emissions. For the purposes of this permit, an "emergency" means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;

b. The facility at the time was being properly operated;

c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and

d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. *567 IAC 22.108(16)*

G15. Permit Deviation Reporting Requirements

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 22.108(5)"b"*

G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:

a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.

b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
d. The changes are not subject to any requirement under Title IV of the Act.
e. The changes comply with all applicable requirements.
f. For such a change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:

i. A brief description of the change within the permitted facility,
ii. The date on which the change will occur,
iii. Any change in emission as a result of that change,
iv. The pollutants emitted subject to the emissions trade
v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
vii. Any permit term or condition no longer applicable as a result of the change. *567 IAC 22.110(1)*

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*
3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*
4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*
5. Aggregate Insignificant Emissions. The permittee shall not construct, establish or operate any new insignificant activities or modify any existing insignificant activities in such a way that the emissions from these activities no longer meet the criteria of aggregate insignificant emissions. If the aggregate insignificant emissions are expected to be exceeded, the permittee shall submit the appropriate permit modification and receive approval prior to making any change. *567 IAC 22.103(2)*
6. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

G18. Duty to Modify a Title V Permit

1. Administrative Amendment.

a. An administrative permit amendment is a permit revision that is required to do any of the following:

i. Correct typographical errors

ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;

iii. Require more frequent monitoring or reporting by the permittee; or

iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.

b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.

c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

2. Minor Permit Modification.

a. Minor permit modification procedures may be used only for those permit modifications that do any of the following:

i. Do not violate any applicable requirements

ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit.

iii. Do not require or change a case by case determination of an emission limitation or other standard, or increment analysis.

iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act.;

v. Are not modifications under any provision of Title I of the Act; and

vi. Are not required to be processed as significant modification.

b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:

i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs.

ii. The permittee's suggested draft permit

iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of a minor permit modification procedures and a request that such procedures be used; and

iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).

c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, existing permit term terms and conditions it seeks to modify may subject the facility to enforcement action.

3. Significant Permit Modification. Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, and those requirements that apply to Title V issuance and renewal. *567 IAC 22.111-567 IAC 22.113* The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. *567 IAC 22.105(1)"a"(4)*

G19. Duty to Obtain Construction Permits

Unless exempted under 567 IAC 22.1(2), the permittee must not construct, install, reconstruct, or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, conditional permit, or permit pursuant to 567 IAC 22.8, or permits required pursuant to 567 IAC 22.4 and 567 IAC 22.5. Such permits shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source. *567 IAC 22.1(1)*

G20. Asbestos

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when conducting any renovation or demolition activities at the facility. *567 IAC 23.1(3)"a", and 567 IAC 23.2*

G21. Open Burning

The permittee is prohibited from conducting open burning, except as may be allowed by 567 IAC 23.2. *567 IAC 23.2 <u>except</u> 23.2(3)"h"; 567 IAC 23.2(3)"h" - State Only*

G22. Acid Rain (Title IV) Emissions Allowances

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. “Held” in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. *567 IAC 22.108(7)*

G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.

b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.

c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.

d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.

b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.

c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.

d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)

e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

G24. Permit Reopenings

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*
2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.

a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to June 25, 1993.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a", 567 IAC 22.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to June 25, 1993, provided that the reopening may be stayed pending judicial review of that determination;

b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;

c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

G25. Permit Shield

Compliance with the conditions of this permit shall be deemed compliance with the applicable requirements included in this permit as of the date of permit issuance.

This permit shield shall not alter or affect the following:

1. The provisions of section 303 of the Act (emergency orders), including the authority of the administrator under that section;
2. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;
3. The applicable requirements of the acid rain program, consistent with section 408(a) of the Act;
4. The ability of the department or the administrator to obtain information from the facility pursuant to section 114 of the Act. *567 IAC 22.108 (18)*

G26. Severability
The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.108 (8)*

G27. Property Rights
The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 22.108 (9)"d"*

G28. Transferability
This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought to determine transferability of the permit. *567 IAC 22.111 (1)"d"*

G29. Disclaimer
No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*

G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification
The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with an applicable requirement. For the department to consider test results a valid demonstration of compliance with applicable rules or a permit condition, such notice shall be given. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. Unless specifically waived by the department's stack test contact, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. The department may accept a testing protocol in lieu of a pretest meeting. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.
Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator
Iowa DNR, Air Quality Bureau
7900 Hickman Road, Suite #1
Urbandale, IA 50322
(515) 242-6001

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.
567 IAC 25.1(7)"a", 567 IAC 25.1(9)

G31. Prevention of Air Pollution Emergency Episodes

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons. *567 IAC 26.1(1)*

G32. Contacts List

The current address and phone number for reports and notifications to the EPA administrator is:

Chief of Air Permits
EPA Region 7
Air Permits and Compliance Branch
901 N. 5th Street
Kansas City, KS 66101
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau
Iowa Department of Natural Resources
7900 Hickman Road, Suite #1
Urbandale, IA 50322
(515) 242-5100

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

Field Office 1
909 West Main – Suite 4
Manchester, IA 52057
(563) 927-2640

Field Office 2
P.O. Box 1443
2300-15th St., SW
Mason City, IA 50401
(641) 424-4073

Field Office 3
1900 N. Grand Ave.
Spencer, IA 51301
(712) 262-4177

Field Office 4
1401 Sunnyside Lane
Atlantic, IA 50022
(712) 243-1934

Field Office 5
401 SW 7th Street, Suite I
Des Moines, IA 50309
(515) 725-0268

Field Office 6
1004 W. Madison
Washington, IA 52353
(319) 653-2135

Polk County Public Health Dept.
Air Quality Division
5885 NE 14th St.
Des Moines, IA 50313
(515) 286-3351

Linn County Public Health Dept.
Air Pollution Control Division
501 13th St., NW
Cedar Rapids, IA 52405
(319) 892-6000

Appendix A

Table 2. List of Volatile Hazardous Air Pollutants

Chemical Name	CAS No.
Acetaldehyde	75070
Acetamide	60355
Acetonitrile	75058
Acetophenone	98862
2-Acetylaminofluorine	53963
Acrolein	107028
Acrylamide	79061
Acrylic acid	79107
Acrylonitrile	107131
Allyl chloride	107051
4-Aminobiphenyl	92671
Aniline	62533
o-Anisidine	90040
Benzene	71432
Benzidine	92875
Benzotrichloride	98077
Benzyl chloride	100447
Biphenyl	92524
Bis (2-ethylhexyl) phthalate (DEHP)	117817
Bis (chloromethyl) ether	542881
Bromoform	75252
1,3-Butadiene	106990
Carbon disulfide	75150
Carbon tetrachloride	56235
Carbonyl sulfide	463581
Catechol	120809
Chloroacetic acid	79118
2-Chloroacetophenone	532274
Chlorobenzene	108907
Chloroform	67663
Chloromethyl methyl ether	107302
Chloroprene	126998
Cresols (isomers and mixture)	1319773
o-Cresol	95487
m-Cresol	108394
p-Cresol	106445
Cumene	98828
2,4-D (2,4-Dichlorophenoxyacetic acid, including salts and esters)	94757
DDE (1,1-Dichloro-2,2-bis(p-chlorophenyl)ethylene)	72559
Diazomethane	334883
Dibenzofuran	132649
1,2-Dibromo-3-chloropropane	96128
Dibutylphthalate	84742
1,4-Dichlorobenzene	106467
3,3'-Dichlorobenzidine	91941
Dichloroethyl ether (Bis(2-chloroethyl)ether)	111444
1,3-Dichloropropene	542756
Diethanolamine	111422
N,N-Dimethylaniline	121697
Diethyl sulfate	64675

3,3'-Dimethoxybenzidine	119904
4-Dimethylaminoazobenzene	60117
3,3'-Dimethylbenzidine	119937
Dimethylcarbamoyl chloride	79447
N,N-Dimethylformamide	68122
1,1-Dimethylhydrazine	57147
Dimethyl phthalate	131113
Dimethyl sulfate	77781
4,6-Dinitro-o-cresol, and salts	534521
2,4-Dinitrophenol	51285
2,4-Dinitrotoluene	121142
1,4-Dioxane (1,4-Diethyleneoxide)	123911
1,2-Diphenylhydrazine	122667
Epichlorohydrin (1-Chloro-2,3-epoxypropane)	106898
1,2-Epoxybutane	106887
Ethyl acrylate	140885
Ethylbenzene	100414
Ethyl carbamate (Urethane)	51796
Ethyl chloride (Chloroethane)	75003
Ethylene dibromide (Dibromoethane)	106934
Ethylene dichloride (1,2-Dichloroethane)	107062
Ethylene glycol	107211
Ethylene oxide	75218
Ethylenethiourea	96457
Ethylidene dichloride (1,1-Dichloroethane)	75343
Formaldehyde	50000
Glycolethers [a]	
Hexachlorobenzene	118741
Hexachloro-1,3-butadiene	87683
Hexachloroethane	67721
Hexamethylene-1,6-diisocyanate	822060
Hexamethylphosphoramide	680319
Hexane	110543
Hydrazine	302012
Hydroquinone	123319
Isophorone	78591
Maleic anhydride	108316
Methanol	67561
Methyl bromide (Bromomethane)	74839
Methyl chloride (Chloromethane)	74873
Methyl chloroform (1,1,1-Trichloroethane)	71556
Methyl ethyl ketone (2-Butanone)	78933
Methylhydrazine	60344
Methyl iodide (Iodomethane)	74884
Methyl isobutyl ketone (Hexone)	108101
Methyl isocyanate	624839
Methyl methacrylate	80626
Methyl tert-butyl ether	1634044
4,4'-Methylenebis (2-chloroaniline)	101144
Methylene chloride (Dichloromethane)	75092
4,4'-Methylenediphenyl diisocyanate (MDI)	101688
4,4'-Methylenedianiline	101779
Naphthalene	91203

Nitrobenzene	98953
4-Nitrobiphenyl	92933
4-Nitrophenol	100027
2-Nitropropane	79469
N-Nitroso-N-methylurea	684935
N-Nitrosodimethylamine	62759
N-Nitrosomorpholine	59892
Phenol	108952
p-Phenylenediamine	106503
Phosgene	75445
Phthalic anhydride	85449
Polychlorinated biphenyls (Aroclors)	1336363
Polycyclic Organic Matter [b]	
1,3-Propane sultone	1120714
beta-Propiolactone	57578
Propionaldehyde	123386
Propoxur (Baygon)	114261
Propylene dichloride (1,2-Dichloropropane)	78875
Propylene oxide	75569
1,2-Propylenimine (2-Methyl aziridine)	75558
Quinone	106514
Styrene	100425
Styrene oxide	96093
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
1,1,2,2-Tetrachloroethane	79345
Tetrachloroethylene (Perchloroethylene)	127184
Toluene	108883
2,4-Toluenediamine	95807
Toluene-2,4-diisocyanate	584849
o-Toluidine	95534
1,2,4-Trichlorobenzene	120821
1,1,2-Trichloroethane	79005
Trichloroethylene	79016
2,4,5-Trichlorophenol	95954
2,4,6-Trichlorophenol	88062
Triethylamine	121448
Trifluralin	1582098
2,2,4-Trimethylpentane	540841
Vinyl acetate	108054
Vinyl bromide	593602
Vinyl chloride	75014
Vinylidene chloride (1,1-Dichloroethylene)	75354
Xylenes (isomers and mixture)	1330207
o-Xylene	95476
m-Xylene	108383
p-Xylene	106423

[a] Includes mono- and di-ethers of ethylene glycol, diethylene glycols and triethylene glycol; R-(OCH_2 CH_2) RR-OR where:
n = 1, 2, or 3,
R = alkyl or aryl groups
R'= R, H, or groups which, when removed, yield glycol ethers with the structure:
R-(OCH_2 CH_2)$_n$-OH. Polymers are excluded from the glycol category.

[b] Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100 deg.C.

Table 3. Summary of Emission Limits

Emission Point	Existing Source	New Source
Finishing Operations: (a) Achieve a weighted average VHAP content across all coatings (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied	[a]1.0	[a]0.8
(b) Use compliant finishing materials (maximum kg HAP/kg solids [lb VHAP/lb solids], as applied):		
--stains	[a]1.0	[a]1.0
--washcoats	[a,b]1.0	[a,b]0.8
--sealers	[a]1.0	[a]0.8
--topcoats	[a]1.0	[a]0.8
--basecoats	[a,b]1.0	[a,b]0.8
--enamels	[a,b]1.0	[a,b]0.8
--thinners (maximum % HAP allowable); or	10.0	10.0
(c) As an alternative, use control device; or	[c]1.0	[c]0.8
(d) Use any combination of (a), (b), and (c)	1.0	0.8
Cleaning Operations: Strippable spray booth material (maximum VOC content, kg VOC/kg solids [lb VOC/lb solids])	0.8	0.8
Contact Adhesives: (a) Use compliant contact adhesives (maximum kg VHAP/kg solids [lb VHAP/lb solids], as applied) based on following criteria:		
i. For aerosol adhesives, and for contact adhesives applied to nonporous substrates	[d]NA	[d]NA
ii. For foam adhesives used in products that meet flammability requirements	1.8	0.2
iii. For all other contact adhesives (including foam adhesives used in products that do not meet flammability requirements); or	1.0	0.2
(b) Use a control device	[e]1.0	[e]0.2

[a]The limits refer to the VHAP content of the coating, as applied.
[b]Washcoats, basecoats, and enamels must comply with the limits presented in this table if they are purchased premade, that is, if they are not formulated onsite by thinning other finishing materials. If they are formulated onsite, they must be formulated using compliant finishing materials, i.e., those that meet the limits specified in this table, and thinners containing no more than 3.0 percent HAP by weight.
[c]The control device must operate at an efficiency that is equivalent to no greater than 1.0 kilogram (or 0.8 kilogram) of VHAP being emitted from the affected emission source per kilogram of solids used.
[d]There is no limit on the VHAP content of these adhesives.
[e]The control device must operate at an efficiency that is equivalent to no greater than 1.0 kilogram (or 0.2 kilogram) of VHAP being emitted from the affected emission source per kilogram of solids used.

Table 4. Pollutants Excluded From Use in Cleaning and Washoff Solvents

Chemical Name	CAS No.
4-Aminobiphenyl	92671
Styrene oxide	96093
Diethyl sulfate	64675
N-Nitrosomorpholine	59892
Dimethyl formamide	68122
Hexamethylphosphoramide	680319
Acetamide	60355
4,4'-Methylenedianiline	101779
o-Anisidine	90040
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746016
Beryllium salts	
Benzidine	92875
N-Nitroso-N-methylurea	684935
Bis (chloromethyl) ether	542881
Dimethyl carbamoyl chloride	79447
Chromium compounds (hexavalent)	
1,2-Propylenimine (2-Methyl aziridine)	75558
Arsenic and inorganic arsenic compounds	99999904
Hydrazine	302012
1,1-Dimethyl hydrazine	57147
Beryllium compounds	7440417
1,2-Dibromo-3-chloropropane	96128
N-Nitrosodimethylamine	62759
Cadmium compounds	
Benzo (a) pyrene	50328
Polychlorinated biphenyls (Aroclors)	1336363
Heptachlor	76448
3,3'-Dimethyl benzidine	119937
Nickel subsulfide	12035722
Acrylamide	79061
Hexachlorobenzene	118741
Chlordane	57749
1,3-Propane sultone	1120714
1,3-Butadiene	106990
Nickel refinery dust	
2-Acetylaminoflourine	53963
3,3'-Dichlorobenzidine	53963
Lindane (hexachlorcyclohexane, gamma)	58899
2,4-Toluene diamine	95807
Dichloroethyl ether (Bis(2-chloroethyl) ether)	111444
1,2-Diphenylhydrazine	122667
Toxaphene (chlorinated camphene)	8001352
2,4-Dinitrotoluene	121142
3,3'-Dimethoxybenzidine	119904
Formaldehyde	50000
4,4'-Methylene bis (2-chloroaniline)	101144
Acrylonitrile	107131
Ethylene dibromide (1,2-Dibromoethane)	106934
DDE (1,1-p-chlorophenyl 1-2 dichloroethylene)	72559
Chlorobenzilate	510156
Dichlorvos	62737
Vinyl chloride	75014

Coke Oven Emissions	
Ethylene oxide	75218
Ethylene thiourea	96457
Vinyl bromide (bromoethene)	593602
Selenium sulfide (mono and di)	7488564
Chloroform	67663
Pentachlorophenol	87865
Ethyl carbamate (Urethane)	51796
Ethylene dichloride (1,2-Dichloroethane)	107062
Propylene dichloride (1,2-Dichloropropane)	78875
Carbon tetrachloride	56235
Benzene	71432
Methyl hydrazine	60344
Ethyl acrylate	140885
Propylene oxide	75569
Aniline	62533
1,4-Dichlorobenzene(p)	106467
2,4,6-Trichlorophenol	88062
Bis (2-ethylhexyl) phthalate (DEHP)	117817
o-Toluidine	95534
Propoxur	114261
1,4-Dioxane (1,4-Diethyleneoxide)	123911
Acetaldehyde	75070
Bromoform	75252
Captan	133062
Epichlorohydrin	106898
Methylene chloride (Dichloromethane)	75092
Dibenz (ah) anthracene	53703
Chrysene	218019
Dimethyl aminoazobenzene	60117
Benzo (a) anthracene	56553
Benzo (b) fluoranthene	205992
Antimony trioxide	1309644
2-Nitropropane	79469
1,3-Dichloropropene	542756
7, 12-Dimethylbenz(a) anthracene	57976
Benz(c) acridine	225514
Indeno(1,2,3-cd)pyrene	193395
1,2:7,8-Dibenzopyrene	189559

Table 5.--List of VHAP of Potential Concern Identified by Industry

CAS No.	Chemical Name	EPA de minimis, tons/yr
68122	Dimethyl formamide	1.0
50000	Formaldehyde	0.2
75092	Methylene chloride	4.0
79469	2-Nitropropane	1.0
78591	Isophorone	0.7
1000425	Styrene monomer	1.0
108952	Phenol	0.1
111422	Dimethanolamine	5.0
109864	2-Methoxyethanol	10.0
111159	2-Ethoxyethyl acetate	10.0

Table 6. VHAP of Potential Concern

CAS No.	Chemical Name	EPA de minimis, tons/yr*
92671	4-Aminobiphenyl	1.0
96093	Styrene oxide	1.0
64675	Diethyl sulfate	1.0
59892	N-Nitrosomorpholine	1.0
68122	Dimethyl formamide	1.0
680319	Hexamethylphosphoramide	0.01
60355	Acetamide	1.0
101779	4,4'-Methylenedianiline	1.0
90040	o-Anisidine	1.0
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin	0.00000006
92875	Benzidine	0.00003
684935	N-Nitroso-N-methylurea	0.00002
542881	Bis(chloromethyl) ether	0.00003
79447	Dimethyl carbamoyl chloride	0.002
75558	1,2-Propylenimine (2-Methyl aziridine)	0.0003
57147	1,1-Dimethyl hydrazine	0.0008
96128	1,2-Dibromo-3-chloropropane	0.001
62759	N-Nitrosodimethylamine	0.0001
50328	Benzo (a) pyrene	0.001
1336363	Polychlorinated biphenyls (Aroclors)	0.0009
76448	Heptachlor	0.002
119937	3,3'-Dimethyl benzidine	0.001
79061	Acrylamide	0.002
118741	Hexachlorobenzene	0.004
57749	Chlordane	0.005
1120714	1,3-Propane sultone	0.003
106990	1,3-Butadiene	0.007
53963	2-Acetylaminoflourine	0.0005
91941	3,3'-Dichlorobenzidine	0.02
58899	Lindane (hexachlorocyclohexane, gamma)	0.005
95807	2,4-Toluene diamine	0.002
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)	0.006
122667	1,2--Diphenylhydrazine	0.009
8001352	Toxaphene (chlorinated camphene)	0.006
121142	2,4-Dinitrotoluene	0.002
119904	3,3'-Dimethoxybenzidine	0.01
50000	Formaldehyde	0.2
101144	4,4'-Methylene bis(2-chloroaniline)	0.02
107131	Acrylonitrile	0.03
106934	Ethylene dibromide(1,2-Dibromoethane)	0.01
72559	DDE (1,1-p-chlorophenyl 1-2 dichloroethylene)	0.01
510156	Chlorobenzilate	0.04
62737	Dichlorvos	0.02
75014	Vinyl chloride	0.02
75218	Ethylene oxide	0.09
96457	Ethylene thiourea	0.06
593602	Vinyl bromide (bromoethene)	0.06
67663	Chloroform	0.09
87865	Pentachlorophenol	0.07
51796	Ethyl carbamate (Urethane)	0.08

107062	Ethylene dichloride (1,2-Dichloroethane)	0.08
78875	Propylene dichloride (1,2-Dichloropropane)	0.1
56235	Carbon tetrachloride	0.1
71432	Benzene	0.2
140885	Ethyl acrylate	0.1
75569	Propylene oxide	0.5
62533	Aniline	0.1
106467	1,4-Dichlorobenzene(p)	0.3
88062	2,4,6-Trichlorophenol	0.6
117817	Bis (2-ethylhexyl) phthalate (DEHP)	0.5
95534	o-Toluidine	0.4
114261	Propoxur	2.0
79016	Trichloroethylene	1.0
123911	1,4-Dioxane (1,4-Diethyleneoxide)	0.6
75070	Acetaldehyde	0.9
75252	Bromoform	2.0
133062	Captan	2.0
106898	Epichlorohydrin	2.0
75092	Methylene chloride (Dichloromethane)	4.0
127184	Tetrachloroethylene (Perchloroethylene)	4.0
53703	Dibenz (ah) anthracene	0.01
218019	Chrysene	0.01
60117	Dimethyl aminoazobenzene	1.0
56553	Benzo (a) anthracene	0.01
205992	Benzo (b) fluoranthene	0.01
79469	2-Nitropropane	1.0
542756	1,3-Dichloropropene	1.0
57976	7,12-Dimethylbenz (a) anthracene	0.01
225514	Benz(c)acridine	0.01
193395	Indeno(1,2,3-cd)pyrene	0.01
189559	1,2:7,8-Dibenzopyrene	0.01
79345	1,1,2,2-Tetrachloroethane	0.03
91225	Quinoline	0.0006
75354	Vinylidene chloride (1,1-Dichloroethylene)	0.04
87683	Hexachlorobutadiene	0.09
82688	Pentachloronitrobenzene (Quintobenzene)	0.03
78591	Isophorone	0.7
79005	1,1,2-Trichloroethane	0.1
74873	Methyl chloride (Chloromethane)	1.0
67721	Hexachloroethane	0.5
1582098	Trifluralin	0.9
1319773	Cresols/Cresylic acid (isomers and mixture)	1.0
108394	m-Cresol	1.0
75343	Ethylidene dichloride (1,1-Dichloroethane)	1.0
95487	o-Cresol	1.0
106445	p-Cresol	1.0
74884	Methyl iodide (Iodomethane)	1.0
100425	Styrene	1.0
107051	Allyl chloride	1.0
334883	Diazomethane	1.0
95954	2,4,5--Trichlorophenol	1.0
133904	Chloramben	1.0
106887	1,2--Epoxybutane	1.0

108054	Vinyl acetate	1.0
126998	Chloroprene	1.0
123319	Hydroquinone	1.0
92933	4-Nitrobiphenyl	1.0
56382	Parathion	0.1
13463393	Nickel Carbonyl	0.1
60344	Methyl hydrazine	0.006
151564	Ethylene imine	0.0003
77781	Dimethyl sulfate	0.1
107302	Chloromethyl methyl ether	0.1
57578	beta-Propiolactone	0.1
100447	Benzyl chloride	0.04
98077	Benzotrichloride	0.0006
107028	Acrolein	0.04
584849	2,4--Toluene diisocyanate	0.1
75741	Tetramethyl lead	0.01
78002	Tetraethyl lead	0.01
12108133	Methylcyclopentadienyl manganese	0.1
624839	Methyl isocyanate	0.1
77474	Hexachlorocyclopentadiene	0.1
62207765	Fluomine	0.1
10210681	Cobalt carbonyl	0.1
79118	Chloroacetic acid	0.1
534521	4,6-Dinitro-o-cresol, and salts	0.1
101688	Methylene diphenyl diisocyanate	0.1
108952	Phenol	0.1
62384	Mercury, (acetato-o) phenyl	0.01
98862	Acetophenone	1.0
108316	Maleic anhydride	1.0
532274	2-Chloroacetophenone	0.06
51285	2,4-Dinitrophenol	1.0
109864	2-Methyoxy ethanol	10.0
98953	Nitrobenzene	1.0
74839	Methyl bromide (Bromomethane)	10.0
75150	Carbon disulfide	1.0
121697	N,N-Dimethylaniline	1.0
106514	Quinone	5.0
123386	Propionaldehyde	5.0
120809	Catechol	5.0
85449	Phthalic anhydride	5.0
463581	Carbonyl sulfide	5.0
132649	Dibenzofurans	5.0
100027	4-Nitrophenol	5.0
540841	2,2,4-Trimethylpentane	5.0
111422	Diethanolamine	5.0
822060	Hexamethylene-1,6-diisocyanate	5.0
	Glycol ethers[a]	5.0
	Polycyclic organic matter[b]	0.01

* These values are based on the de minimis levels provided in the proposed rulemaking pursuant to section 112(g) of the Act using a 70-year lifetime exposure duration for all VHAP. Default assumptions and the de minimis values based on inhalation reference doses (RfC) are not changed by this adjustment.

[a] Except for ethylene glycol butyl ether, ethylene glycol ethyl ether (2-ethoxy ethanol), ethylene glycol hexyl ether, ethylene glycol methyl ether (2-methoxyethanol), ethylene glycol phenyl ether, ethylene glycol propyl ether, ethylene glycol mono-2-ethylhexyl ether, diethylene glycol butyl ether, diethylene glycol ethyl ether, diethylene glycol methyl ether, diethylene glycol hexyl ether, diethylene glycol phenyl ether, diethylene glycol propyl ether, triethylene glycol butyl ether, triethylene glycol ethyl ether, triethylene glycol methyl ether, triethylene glycol propyl ether, ethylene glycol butyl ether acetate, ethylene glycol ethyl ether acetate, and diethylene glycol ethyl ether acetate.

[b] Except for benzo(b)fluoranthene, benzo(a)anthracene, benzo(a)pyrene, 7,12-dimethylbenz(a)anthracene, benz(c)acridine, chrysene, dibenz(ah) anthracene, 1,2:7,8-dibenzopyrene, indeno(1,2,3-cd)pyrene, but including dioxins and furans.

Appendix B